



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D412-742-053**  
**Job Sheet 187992**



Part No: D412-742-053

Job Qty: 1 pcs ✓

Part Name: Repl. Skidtube, DART (Apical) Tri-Bag Float Compatible - Fits LH or RH



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 12/31/18

Job Tracking No:

Due Date: 2/22/19

Created By: Jesse White

Type: Stock

Description:

Note: IIN-D412-742-2 REV.A IPP REV:A 17.11.02 NEW ISSUE DD VERF:JFS IPP REV:B 18.08.20 AS PER  
CHG002 (DSI 9800) DD VERF:DP

Ship Via:

### Bill of Materials

### Job Routing

| Op<br>No | Operation              | Qty   | Start Date | Due<br>Date | Standard     |            | Workcenter/Supplier   |           | Sign-off |
|----------|------------------------|-------|------------|-------------|--------------|------------|-----------------------|-----------|----------|
|          |                        |       |            |             | Setup<br>Hrs | Run<br>Hrs | Workcenter / Supplier | Lead Time |          |
| 110      | Packaging 1 - Pick Kit | 1 pcs |            | 2/22/19     | 0.00         | 0.00       | Packaging 1 - 1       |           | S203603  |
|          |                        |       |            |             |              |            | Packaging 1 - 2       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 3       |           | O.R.     |
|          |                        |       |            |             |              |            | Packaging 1 - 4       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 5       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 6       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 7       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 8       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 9       |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 10      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 11      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 12      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 13      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 14      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 15      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 16      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 17      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 18      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 19      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 20      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 21      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 22      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 23      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 24      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 25      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 26      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 27      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 28      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 29      |           |          |
|          |                        |       |            |             |              |            | Packaging 1 - 30      |           |          |

5193355



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaerospace.com

Container No: S203265



Part: D412-742-053

Job No: 187992

Serial No/Batch: S203265

Revision: A

Inspector:

Exp Date:

Instructions: FAA STC SR01583SE 18/10/17 TC STC SH05-37 Issue 1, EASA STI

S203603

Good

|                                 |       |         |           |                        |  |
|---------------------------------|-------|---------|-----------|------------------------|--|
| 120 QC 4                        | 1 pcs | 2/22/19 | 0.00 0.00 | Packaging 1 - 31       |  |
|                                 |       |         |           | Packaging 1 - 32       |  |
|                                 |       |         |           | Packaging 1 - 33       |  |
|                                 |       |         |           | Packaging 1 - 34       |  |
|                                 |       |         |           | Packaging 1 - 35       |  |
|                                 |       |         |           | Packaging 1 - 36       |  |
|                                 |       |         |           | QC 4 - 26              |  |
|                                 |       |         |           | QC 4 - 28              |  |
|                                 |       |         |           | QC 4 - 38              |  |
|                                 |       |         |           | QC 4 - 42              |  |
|                                 |       |         |           | QC 4 - 58              |  |
|                                 |       |         |           | QC 4 - 6               |  |
|                                 |       |         |           | QC 4 - 69              |  |
|                                 |       |         |           | QC 4 - 9               |  |
|                                 |       |         |           | QC 4 - 46              |  |
|                                 |       |         |           | Packaging 3 - 1 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 2 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 3 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 4 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 5 - B4B  |  |
| 130 Packaging 3-1 - Stock - B4B | 1 pcs | 2/22/19 | 0.00 0.00 | Packaging 3 - 6 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 7 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 8 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 9 - B4B  |  |
|                                 |       |         |           | Packaging 3 - 10 - B4B |  |
|                                 |       |         |           | Packaging 3 - 11 - B4B |  |
|                                 |       |         |           | Packaging 3 - 12 - B4B |  |
|                                 |       |         |           | Packaging 3 - 13 - B4B |  |
|                                 |       |         |           | Packaging 3 - 14 - B4B |  |
|                                 |       |         |           | Packaging 3 - 15 - B4B |  |
|                                 |       |         |           | Packaging 3 - 16 - B4B |  |
|                                 |       |         |           | Packaging 3 - 17 - B4B |  |
|                                 |       |         |           | Packaging 3 - 18 - B4B |  |
|                                 |       |         |           | Packaging 3 - 19 - B4B |  |
|                                 |       |         |           | Packaging 3 - 20 - B4B |  |
|                                 |       |         |           | Packaging 3 - 21 - B4B |  |
|                                 |       |         |           | Packaging 3 - 22 - B4B |  |
|                                 |       |         |           | Packaging 3 - 23 - B4B |  |
|                                 |       |         |           | Packaging 3 - 24 - B4B |  |
|                                 |       |         |           | Packaging 3 - 25 - B4B |  |
| 135 DC - 1 - B4B                | 1 pcs | 2/22/19 | 0.00 0.00 | Packaging 3 - 26 - B4B |  |
|                                 |       |         |           | Packaging 3 - 27 - B4B |  |
|                                 |       |         |           | Packaging 3 - 28 - B4B |  |
|                                 |       |         |           | Packaging 3 - 29 - B4B |  |
|                                 |       |         |           | Packaging 3 - 30 - B4B |  |
|                                 |       |         |           | Packaging 3 - 31 - B4B |  |
|                                 |       |         |           | Packaging 3 - 32 - B4B |  |
|                                 |       |         |           | Packaging 3 - 33 - B4B |  |
|                                 |       |         |           | Packaging 3 - 34 - B4B |  |
|                                 |       |         |           | Packaging 3 - 35 - B4B |  |
| 140 QC 21 - SA                  | 1 pcs | 2/22/19 | 0.00 0.00 | Packaging 3 - 36 - B4B |  |
|                                 |       |         |           | QC 21 - SA - 21        |  |
|                                 |       |         |           | QC 21 - SA - 70        |  |

DAS  
75  
9-89

AUG 0 7 2019

DAS  
75  
9-89

AUG 0 7 2019

DAS  
21  
9-89

AUG 0 7 2019

AUG 0 7 2019

Part Op 110 - Packaging1-4 (Pick Kit)  
 Descriptions: 120 - QC4 (QC4- 100% Inspect kits for completeness)  
 130 - Packaging3-2 (Identify as per dwg & Stock Location: \_\_\_\_\_) Identify and pack for shipping as per PPP D412-742-053 Location :FG083

### Job BOM

| Part / Item  | Component Name                                                                         | Quantity       | Operation                     | Container |
|--------------|----------------------------------------------------------------------------------------|----------------|-------------------------------|-----------|
| AN3C44A      | Bolt                                                                                   | 15 Ea (15 ea)  | 110-Packaging 1 -<br>Pick Kit | S176409 ✓ |
| D412-742-055 | Thru-Bolt Full-Length Standard Wearplates, Bell Medium - Fits LH 1 pcs (1 ea)<br>or RH | 1 pcs (1 ea)   | 110-Packaging 1 -<br>Pick Kit | S202328   |
| D5425-043    | Float Skidtube Assembly                                                                | 1 Ea (1 ea)    | 110-Packaging 1 -<br>Pick Kit | S143355   |
| D5513-1      | Bushing                                                                                | 30 pcs (30 ea) | 110-Packaging 1 -<br>Pick Kit | S190715 ✓ |
| MS21043-3    | Nut                                                                                    | 15 Ea (15 ea)  | 110-Packaging 1 -<br>Pick Kit | S176493 ✓ |

### Job Allocations

| Operation                  | Component Part | Required | Inventory | Allocated |
|----------------------------|----------------|----------|-----------|-----------|
| 110-Packaging 1 - Pick Kit | AN3C44A        | 15       | 177       | 0         |
|                            | D412-742-055   | 1        | 0         | 0         |
|                            | D5425-043      | 1        | 12        | 0         |
|                            | D5513-1        | 30       | 56        | 0         |
|                            | MS21043-3      | 15       | 661       | 0         |

### Part Specifications

Specifications could not be found.

Plex 1/29/19 4:10 PM Dart.Hadley.Shannon

Master Unit No  
 011244





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D412-742-053**  
**Job Sheet 187992**



**Part No:** D412-742-053

**Job Qty:** 1 ea

**Part Name:** Repl. Skidtube, DART (Apical) Tri-Bag Float Compatible - Fits LH or RH



**Part Weight:** 0 lbs

**Status:** New

**Priority:** Medium

**Job Created:** 12/31/18

**Job Tracking No:**

**Due Date:** 2/22/19

**Created By:** Jesse White

**Type:** Stock

**Description:**

**Note:** IIN-D412-742-2 REV.A IPP REV:A 17.11.02 NEW ISSUE DD VERF:JFS IPP REV:B 18.08.20 AS PER CHG002 (DSI 9800) DD VERF:DP

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|----------|
|       |                    |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier | Lead Time |          |
| 90    | Start up Operation | 1 Ea  |            | 2/22/19  | 0.00      | 0.00    | Start Up Stores/Pkg-2 |           |          |
| 110   | Packaging          | 1 pcs |            | 2/22/19  | 0.00      | 0.00    | Packaging1-4          |           |          |
| 120   | QC                 | 1 pcs |            | 2/22/19  | 0.00      | 0.00    | QC4                   |           |          |
| 130   | Packaging          | 1 pcs |            | 2/22/19  | 0.00      | 0.00    | Packaging3-2          |           |          |
| 135   | DC                 | 1 pcs |            | 2/22/19  | 0.00      | 0.00    | DC                    |           |          |
| 140   | QC21-SA            | 1 Ea  |            | 2/22/19  | 0.00      | 0.00    | QC21                  |           |          |

Part Op **130** - Identify and pack for shipping as per PPP D412-742-053 Location :FG083  
Descriptions: **135** - Photocopy blue file and create labels per PPP D412-742-053 CHG002  
**140** - NULL

### Job BOM

| Part / Item  | Component Name                                                         | Quantity      | Operation             | Container |
|--------------|------------------------------------------------------------------------|---------------|-----------------------|-----------|
| AN3C44A      | Bolt                                                                   | 15 Ea (15 ea) | 90-Start up Operation |           |
| D412-742-055 | Thru-Bolt Full-Length Standard Wearplates, Bell Medium - Fits LH or RH | 1 Ea (1 ea)   | 90-Start up Operation |           |
| D5425-043    | Float Skidtube Assembly                                                | 1 Ea (1 ea)   | 90-Start up Operation |           |
| D5513-1      | Bushing                                                                | 30 Ea (30 ea) | 90-Start up Operation |           |
| MS21043-3    | Nut                                                                    | 15 Ea (15 ea) | 90-Start up Operation |           |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | AN3C44A        | 15       | 37        | 0         |
|                       | D412-742-055   | 1        | 0         | 0         |
|                       | D5425-043      | 1        | 3         | 0         |
|                       | D5513-1        | 30       | 6         | 0         |
|                       | MS21043-3      | 15       | 776       | 0         |



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                      |  |                        |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | MRB (QSI042)           |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | Completed By           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | Lead hand / Supervisor |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | QC / QA Coordinator    |  |
| <b>Root Cause</b><br><br><div style="display: flex;"> <div style="flex: 1;">           Operator <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Preservation <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Human Factors <input type="checkbox"/> </div> <div style="flex: 1;"> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> </div> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex;"> <div style="flex: 1;"> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div style="flex: 1;"> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div style="flex: 1;"> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |  |                        |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                        |  |

|                                    |
|------------------------------------|
| <b>Part Specifications</b>         |
| Specifications could not be found. |

Plex 12/31/18 12:45 PM dart.white.jesse



Entered: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. \_\_\_\_\_

Route update only ☐

|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|--|
| Job: _____<br><br>Part No. _____                                                                                                                                                                                                                                                                                                                                                         | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/> | <b>DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/> </div> <div>           Eng. (Non-AW) <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Water Jet <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Quality <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                        |              |  |
| Date :                                                                                                                                                                                                                                                                                                                                                                                   | Sequence #:                                                                                                                       | QTY Affected :                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                        | MRB (QSI042) |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Disposition            |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Completed By           |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Lead hand / Supervisor |              |  |
|                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | QC / QA Coordinator    |              |  |
| <b>Root Cause</b><br><br>Operator <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Presservation <input type="checkbox"/><br>Material <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Human Factors <input type="checkbox"/> |                                                                                                                                   | <b>FAULT CATEGORY</b><br><br><div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> Pressure/Forced<br/> <input type="checkbox"/> Bending<br/> <input type="checkbox"/> Crushing<br/> <input type="checkbox"/> Cracks<br/> <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist<br/> <input type="checkbox"/> Marks/Chatter<br/> <input type="checkbox"/> Mislabeled         </div> <div> <input type="checkbox"/> Contamination<br/> <input type="checkbox"/> Misaligned/off center<br/> <input type="checkbox"/> BOM/Route<br/> <input type="checkbox"/> Broken/Damage/Defect<br/> <input type="checkbox"/> Incomplete/Unclear Instructions<br/> <input type="checkbox"/> Drill Holes<br/> <input type="checkbox"/> Fit/Function         </div> <div> <input type="checkbox"/> Power Loss/Surge<br/> <input type="checkbox"/> Folio/Program<br/> <input type="checkbox"/> Grain Direction<br/> <input type="checkbox"/> Weld<br/> <input type="checkbox"/> Wrong Stock Pulled<br/> <input type="checkbox"/> Out of Sequence<br/> <input type="checkbox"/> Off-set/Set-up         </div> <div> <input type="checkbox"/> Positioned Wrong<br/> <input type="checkbox"/> Outside Tolerance<br/> <input type="checkbox"/> Drawing<br/> <input type="checkbox"/> Finish<br/> <input type="checkbox"/> Part Lost/Missing<br/> <input type="checkbox"/> Misread         </div> </div> |                        |              |  |
| Other/Details:                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                        |              |  |



## 5.2 D412-742-023 (DART TRI-BAG) Float Skidtube Installation Parts List

| Item | Qty<br>-023 | Qty<br>-053 | Part Number    | Description                 |
|------|-------------|-------------|----------------|-----------------------------|
|      | X           |             | D412-742-023   | FLOAT SKIDTUBE INSTALLATION |
|      | 1           | X           | D412-742-053   | FLOAT SKIDTUBE              |
|      |             | 1           | D412-742-055   | WEARPLATE KIT               |
|      |             | 1           | D5425-043      | FLOAT SKIDTUBE ASSY.        |
| 1    |             | *6          | *D3672-1       | *WASHER                     |
| 2    |             | 30          | D5513-1        | BUSHING                     |
| 3    |             | *12         | *D5512-1       | *CROSSBOLT SPACER           |
| 5    |             | *1          | *D5525-3       | *FLOAT SKIDTUBE             |
| 6    |             | *1          | *D5483-041     | *TOW CAP ASSY.              |
| 7    |             | *1          | *D5484-041     | *AFT CAP ASSY.              |
| 12   |             | *18         | *D5518-1       | *CROSSBOLT SPACER           |
| 13   |             | *6          | *AN3C5A        | *BOLT                       |
| 14   |             | 15          | AN3C44A        | BOLT                        |
| 15   |             | *6          | *NAS1149C0332R | *WASHER                     |
| 16   |             | 15          | MS21043L3      | NUT                         |
| 30   | 1           |             | D5466-1        | SADDLE, FWD INSIDE          |
| 31   | 1           |             | D5467-1        | SADDLE, FWD OUTSIDE         |
| 32   | 1           |             | D5468-1        | SADDLE, AFT OUTSIDE         |
| 33   | 1           |             | D5469-1        | SADDLE, AFT INSIDE          |
| 34   | 16          |             | AN4C6A         | BOLT                        |
| 35   | 28          |             | MS21043-4      | NUT                         |
| 36   | 32          |             | NAS1149C0432R  | WASHER                      |
| 37   | 32          |             | D3672-3        | PHENOLIC WASHER             |
| 38   | 8           |             | AN4C52A        | BOLT                        |
| 39   | 24          |             | D5446-1        | BUSHING                     |
| 40   | 8           |             | AN6C12A        | BOLT                        |
| 41   | 8           |             | NAS1149C0632R  | WASHER                      |
| 42   | 8           |             | D3672-9        | WASHER                      |
| 43   | 2           |             | D2876          | SADDLE SPACER               |
| 44   | 2           |             | D2877          | SADDLE SPACER               |
| 45   | 4           |             | D2747          | SET SCREW                   |
| 46   | 2           |             | D3533-1        | SET SCREW                   |
| 47   | 4           |             | AN4C7A         | BOLT                        |
| 50   | 1           |             | D3407-047      | TOW RING                    |
| 51   | 2           |             | D5482-3        | ACETAL WASHER               |
| 52   | 1           |             | D3456-1        | WASHER                      |
| 60   | 1           |             | D3405-041      | GHW LUG                     |
| 61   | 1           |             | D3405-043      | GHW LUG                     |
| 62   | 4           |             | AN4C47A        | BOLT                        |
| 63   | 8           |             | D5482-1        | ACETAL WASHER               |
| 71   | 75**        |             | NAS1149C0332R  | WASHER                      |
| 72   | 6           |             | D5513-1        | BUSHING                     |
| 73   | 3           |             | MS21043-3      | NUT                         |
| 74   | 13          |             | AN3C46A        | BOLT                        |

\*DENOTES PART IS INCLUDED WITH D5425-043 ASSEMBLY

\*\*INCLUDES ADDITIONAL WASHERS TO COMPENSATE FOR VARIANCE IN STACKUP THICKNESS

• COPYRIGHT © 2017 BY DART AEROSPACE USA, INC. •

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

Revision: A

Date: 17.07.20